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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,914	01/18/2001	Galen Mark Gareis	6500-1583.2	8471

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EXAMINER

MAYO III, WILLIAM H

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/765,914	GAREIS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	William H. Mayo III	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 14, 16, 17 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14, 16-17, and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 14, 16-17, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al (JP Pat Num 4-332406, herein referred to as Ikeda) in view of Arroyo et al (Pat Num 4,807,962). Ikeda discloses a shield cable (Figs 1-4) capable of being used as a communications cable (i.e. data cable, Page 2, lines 7-10). Specifically, with respect to claim 14, Ikeda discloses a data cable (Fig 1) that may have a plurality of twisted pairs conductors (9, as shown in Fig 4a), a cable covering

(pressing tape, not shown, Page 3, lines 8-10), and an interior support (1) comprising a longitudinally extending central portion (2) forming the core of the support (1), a plurality of projections (denoted by examiner as reference number 25) extending from the central portion (2), wherein each one of the projections (25) is adjacent to two other projections (25) thereby forming a plurality of projections (25), a open area (3) defined by each of the plurality of adjacent projections (25), wherein the cable covering (pressing tape) contacts the top of each spline (25, Page 3, lines 11-12), wherein one twisted pair conductor (9) from the plurality of twisted pairs (9) is disposed in each different open area (3). With respect to claim 16, Ikeda discloses that each of said projections (25) is selected from arm (Figs 1-3). With respect to claim 17, Ikeda discloses that each of the open areas (3) is selected from a groove (Page 6, see description for 3). With respect to claim 25, Ikeda discloses that the cable covering (pressing tape) is only a jacket, wherein the transmission conductors (9) are unshielded twisted pair conductors (9) with only one twisted pair conductor (9) in each conductor compartment (3).

However, Ikeda doesn't necessarily disclose the open area having a volume equal to or greater than a volume of at least one projection adjacent to each open area (claim 14), nor the interior support being unshielded (claim 25).

Arroyo et al (Pat Num 4,807,962, herein referred to as Arroyo). Arroyo teaches a cable (Figs 1-6) having a fluted core, which provides strength for the cable as well as the compartments (Col 1, lines 9-12) and is relatively inexpensive (Col 3, lines 21-27). Specifically, with respect to claim 14, Arroyo teaches that the flute (22) has an open area (28) that has a volume greater than the volume of the at least one projection (26)

adjacent to the open area (28, Fig 1). With respect to claim 25, Arroyo teaches that the flute (22) is an unshielded flute (Fig 2).

With respect to claims 14 and 25, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the interior support (i.e. flute) of Ikeda to comprise the flute to have an unshielded star-shaped configuration as taught by Arroyo because Arroyo teaches that such a configuration provides strength for the cable as well as the compartments (Col 1, lines 9-12) and is relatively inexpensive (Col 3, lines 21-27) and since it has been held that a change in form cannot sustain patentability where involved is only extended application of obvious attributes from a prior art. *In re Span-Deck Inc. vs. Fab-Con Inc.* (CA 8, 1982) 215 USPQ 835.

### ***Response to Arguments***

4. Applicant's arguments filed March 8, 2004 have been fully considered but they are not persuasive. Specifically, the applicant argues the following:

- A) Arroyo doesn't suggest that its fluted member has a shape which provides strength that would improve Ikeda.

With respect to argument A, the examiner respectfully traverses. With respect to the argument, the examiner respectfully traverses. While Ikeda clearly teaches the projections having a portion surrounding the conductors, Ikeda also teaches that the interior support can have all types of variations in the design such as square. Therefore based on this statement, one can assume that Ikeda can have any shape. However, as

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a matter of policy of the Patent Office, a teaching reference, Arroyo has been disclosed for its teaching of a support structure having a support member that is star shaped (Col 4, lines 20-24) which is free from protuberances substantially restricting the openings in the open areas (28, Fig 1), has an open area (28) that has a volume greater than the volume of the at least one projection (26) adjacent to the open area (28, Fig 1) and may be helically twisted (Col 5, lines 10-12), for the purpose of providing a cable with additional mechanical strength in the compartments (Col 1, lines 9-12) and which can be manufactured for relatively cheap (Col 3, lines 21-27). Based on the disclosure of Ikeda, that the support structure can have any shape, and the teaching of Arroyo, there does exist a motivation to combine the teachings of Ikeda and Arroyo to have a support structure that is relatively cheaper than prior art support structure, while still maintaining the primary objective, which is to keep the interior components (i.e. fiber or conductors) equally and radially spaced. Secondly, there also exist an expectation of success, considering that Ikeda discloses that the support structure can have any shape. Thirdly, all of the claim limitations are taught by the combination, therefore the criteria for establishing a prima facie case of obviousness are present. In light of the above statements, the examiner respectfully submits that it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the interior support (i.e. flute) of Ikeda to comprise the flute having star-shaped configuration as taught by Arroyo as explained in the rejection above.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Communication***


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



WHM III  
April 28, 2004

William H. Mayo III  
Primary Examiner  
Art Unit 2831